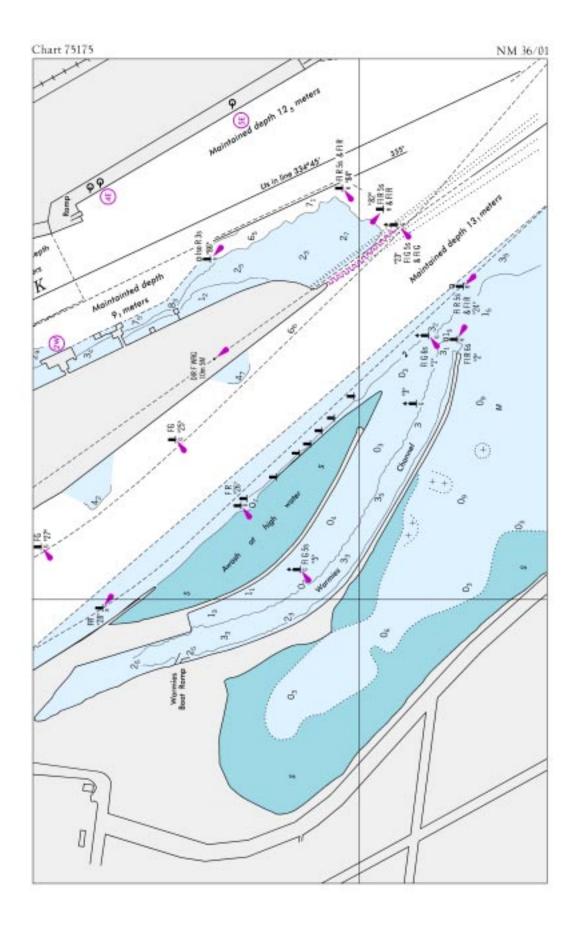
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Chart 18521 NM 36/01

| TABULATED FROM                      | EN                         | DLUMBIA R<br>TRANCE TO<br>BY THE C | MILLER S                   | SANDS RA                    |                | Y 2001          |                        |                      |
|-------------------------------------|----------------------------|------------------------------------|----------------------------|-----------------------------|----------------|-----------------|------------------------|----------------------|
|                                     | PROJ                       | ECT DIME                           | ISIONS                     |                             |                |                 |                        |                      |
| NAME OF CHANNEL                     | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER          | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY | WIDTH<br>(FEET) | LENGTH<br>*<br>(MILES) | DEPTH<br>*<br>(FEET) |
| ENTRANCE RANGE<br>SAND ISLAND RANGE | 57                         | 56                                 | 52                         | 41                          | 5-01           | 2640            | 3.3                    | 48                   |
| (CLATSOP SPIT)                      | 47                         | 51                                 | 49                         | 44                          | 5-01           | 2640            | 2.2                    | 48                   |
| LOWER DESDEMONA SHOAL               | 45                         | 45                                 | 37                         | 30                          | 5-99; 5-01     | 600             | 3.4                    | 40                   |
| UPPER DESDEMONA SHOAL               | 40                         | 44                                 | 46                         | 45                          | 5-01           | 600             | 3.7                    | 40                   |
| TANSY POINT TURN AND RANGE          | 40                         | 41                                 | 41                         | 39                          | 5-01           | 600             | 4.7                    | 40                   |
| ASTORIA RANGE                       | 41                         | 41                                 | 39                         | 38                          | 5-01           | 600             | 2.7                    | 40                   |
| TONGUE POINT CHANNEL                | 39                         | 42                                 | 41                         | 42                          | 5-01           | 600             | 2.2                    | 40                   |
| HARRINGTON POINT RANGE              | 38                         | 40                                 | 40                         | 39                          | 5-01           | 600             | 2.6                    | 40                   |
| MILLER SANDS RANGE                  | 38                         | 41                                 | 42                         | 40                          | 5-01           | 600             | 2.2                    | 40                   |

<sup>\*</sup> CONTROLLING DEPTHS IN CHANNELS ENTERING FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER FROM THE ENTRANCE TO HARRINGTON POINT AND COLUMBIA RIVER DATUM ABOVE THAT POINT. PROJECT LENGTHS ARE IN STATUTE MILES.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18523 NM 36/01

| MILLE                            |                            | DLUMBIA R                 |                            |                             | THS<br>AND CHANNEL |                 |                            |                        |
|----------------------------------|----------------------------|---------------------------|----------------------------|-----------------------------|--------------------|-----------------|----------------------------|------------------------|
| TABULATED FRO                    | M SURVEYS                  | BY THE C                  | CORPS OF                   | ENGINEE                     | RS - SURVEYS TO JU | IN 2001         |                            |                        |
| CONTROLLING DEPTHS FROM SE       | AWARD IN                   | FEET AT C                 | OLUMBIA                    | RIVER DA                    | TUM (CRD)          | PROJ            | ECT DIMEN                  | ISIONS                 |
| NAME OF CHANNEL                  | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY     | WIDTH<br>(FEET) | LENGTH<br>(STAT.<br>MILES) | DEPTH<br>CRD<br>(FEET) |
| MILLER SANDS RANGE               | 38                         | 41                        | 42                         | 40                          | 5 - 01             | 600             | 2.2                        | 40                     |
| PILLAR ROCK LOWER RANGE          | 38                         | 39                        | 40                         | 40                          | 4 - 01             | 600             | 3.0                        | 40                     |
| PILLAR ROCK UPPER RANGE          | 34                         | 43                        | 41                         | 39                          | 4 - 01             | 600             | 1.9                        | 40                     |
| WELCH ISLAND REACH               | 41                         | 45                        | 41                         | 40                          | 4 - 01             | 600             | 3.2                        | 40                     |
| SKAMOKAWA CHANNEL                | 34                         | 41                        | 40                         | 40                          | 4 - 01             | 600             | 3.3                        | 40                     |
| STEAMBOAT REACH                  | 49                         | 44                        | 42                         | 42                          | 4 - 01             | 600             | 1.4                        | 40                     |
| PUGET ISLAND RANGE AND TURN      | 37                         | 40                        | 40                         | 40                          | 3, 4 - 01          | 600             | 3.5                        | 40                     |
| WAUNA RANGE                      | 38                         | 41                        | 43                         | 41                          | 3, 4 - 01          | 600             | 2.2                        | 40                     |
| DRISCOLL RANGE                   | 40                         | 41                        | 41                         | 42                          | 4 - 01             | 600             | 1.7                        | 40                     |
| WESTPORT TURN AND RANGE          | 37                         | 41                        | 41                         | 41                          | 4 - 01             | 600             | 2.0                        | 40                     |
| WESTPORT CHANNEL                 | 39                         | 41                        | 41                         | 36                          | 4 - 01             | 600             | 2.4                        | 40                     |
| EUREKA LOWER CHANNEL             | 46                         | 45                        | 45                         | 44                          | 4 - 01             | 600             | 2.1                        | 40                     |
| EUREKA UPPER CHANNEL             | 40                         | 44                        | 43                         | 44                          | 4, 6 - 01          | 600             | 0.8                        | 40                     |
| OAK POINT CHANNEL                | 47                         | 47                        | 46                         | 43                          | 6 - 01             | 600             | 2.4                        | 40                     |
| GULL I TURN AND CHANNEL          | 45                         | 42                        | 43                         | 40                          | 6 - 01             | 600             | 2.2                        | 40                     |
| NOTE - CONSULT THE CORPS OF ENGI | NEERS FOR                  | CHANGES                   | SUBSEQU                    | JENT TO                     | THE ABOVE INFORM   | ATION           |                            |                        |

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NM 36/01 Chart 18622

## HUMBOLDT BAY AND HARBOR CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAY 2001 CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS RIGHT LENGTH NAME OF CHANNEL DATE OF SURVEY OUTSIDE INSIDE (NAUT. MLLW (FEET) QUARTER QUARTER QUARTER QUARTER MILES) (FEET) BAR CHANNEL 44.8 45.7 40.0 45.8A 5-01 2100-750 1.0 48 ENTRANCE CHANNEL 39.9B 46.4 47.1 45.8 5-01 750 0.8 48 NORTH BAY CHANNEL 35.6C 33.4D 3.5-01 400-500 38 37.5 35.4 3.0 EUREKA CHANNEL OUTER REACH 30.8 31.5 29.6 26.3 5-01 400 0.4 INNER REACH 20.0E 20.0F 21.5G 20.2H 400 1.1 26 SAMOA CHANNEL 38.2 38.1 38.2 36.6 3-01 400 1.3 38 TURNING BASIN 37.8 38.1 38.1 29.4 3-01 400-1000 0.3 38 FIELDS LANDING CHANNEL 24.9 27.7 26.3 22.1 5-01 300 1.9 26 TURNING BASIN 13.8 18.1 28.5 25.8 5-01 300-800 0.1 26

- A. SHOALING TO 40.4 FEET IN THE OUTSIDE 50 FEET OF QUARTER.
- B. SHOALING TO 30.5 FEET IN THE OUTSIDE 100 FEET OF QUARTER.
- C. SHOALING TO 29.6 FEET AT 40°45'37.2"/124°13'13.3".
- C. SHOALING TO 27.5 FEET AT 40'45'33.2'/124'13'08.9' AND TO 28.7 FEET FROM 40'46'18.9'/124'12'17.6' TO 40'46'21.7'/124'12'11.7'.

  E. SHOALING TO 5.4 FEET FROM 40'48'24.2'/124'10'13.0' TO THE FIRST PIER. FROM WEST TO EAST, 11.4 FEET BETWEEN THE 1ST AND 2ND PIER, 10.4 FEET BETWEEN THE 2ND AND 3RD PIER, 9.6 FEET BETWEEN THE 3RD AND 4TH PIER, 9.0 FEET BETWEEN THE 3RD AND 5TH PIER, 8.3 FEET BETWEEN THE 4TH AND 5TH PIER, 8.3 FEET BETWEEN THE 5TH AND 5TH PIER.
- SHOALING TO 8.1 FEET FROM 40°48'23.4"/124°10'13.8" TO 40°48'27.4"/124°09'32.6", THENCE 6.3 FEET TO END OF CHANNEL IN THE OUTSIDE HALF OF QUARTER. SHOALING TO 11.2 FEET FROM 40°48'23.0"/124°10'13.7" TO 40°48'25.7"/124°09'38.2", THENCE 8.0 FEET TO THE END OF THE CHANNEL IN THE INSIDE HALF OF QUARTER.
- SHOALING TO 12.4 FEET IN THE INSIDE HALF OF QUARTER AND SHOALING TO 13.3 FEET IN THE OUTSIDE HALF OF QUARTER, FROM 40°48'22.6'/124°10'10.3" TO THE END OF THE CHANNEL.
- SHOALING TO 12.4 FEET IN THE INSIDE HALF OF QUARTER, FROM 40°48'21.6'/124°10'12.4" TO THE END OF THE CHANNEL. SHOALING TO 9.1 FEET IN THE OUTSIDE HALF OF QUARTER, FROM 40°48'19.3'/124°10'22.0" TO THE END OF CHANNEL, EXCEPT FOR SHOAL TO BARE FROM 40°48'22.0'/124°10'05.2" TO 40°48'22.8'/124°09'52.5" AND SHOALING TO 4.7 FEET AT 40°48'25.4'/124°09'30.0". NOTE-CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

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|                               | SUISUN BA                  | AY AND SA                    | N JOAQUI                    | N RIVER           |                 |                            |                         |
|-------------------------------|----------------------------|------------------------------|-----------------------------|-------------------|-----------------|----------------------------|-------------------------|
| TABULATED FROM SU             | RVEYS BY TH                | HE CORPS                     | OF ENGIN                    | IEERS - SURVEYS T | O APR 2001      |                            |                         |
| CONTROLLING DEPTHS FROM SEAWA | PROJECT DIMENSIONS         |                              |                             |                   |                 |                            |                         |
| NAME OF CHANNEL               | LEFT<br>OUTSIDE<br>QUARTER | MIDDLE<br>HALF OF<br>CHANNEL | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY    | WIDTH<br>(FEET) | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| SUISUN PT. REACH              | 42.9                       | 44.7                         | 47.9                        | 4-01              | 300             | 0.8                        | 35                      |
| BULLS HEAD CHANNEL            | 36.2                       | 36.0                         | 34.9                        | 4-01              | 300-350         | 1.2                        | 35                      |
| EAST BULLS HEAD CHANNEL       | 32.8                       | 33.6                         | 32.8                        | 4-01              | 350             | 1.1                        | 35                      |
| PT. EDITH CROSSING RANGE      | 35.6                       | 34.8                         | 28.4                        | 4-01              | 350             | 1.1                        | 35                      |
| PRESTON PT. REACH             | 35.5                       | 34.9                         | 25.7                        | 4-01              | 350             | 0.9                        | 35                      |
| ROE ISLAND CHANNEL            | 30.9                       | 33.2                         | 32.3                        | 4-01              | 350             | 1.1                        | 35                      |
| PORT CHICAGO REACH            | 36.8                       | 37.1                         | 36.3                        | 4-01              | 350             | 0.52                       | 35                      |
| MIDDLE GROUND CHANNEL         | 1                          |                              |                             |                   |                 |                            |                         |
| WEST REACH                    | 34.7                       | 36.4                         | 34.9                        | 4-01              | 350             | 1.29                       | 35                      |
| EAST REACH                    | 34.2                       | 36.5                         | 35.3                        | 4-01              | 350             | 1.09                       | 35                      |
| NEW YORK SLOUGH               | 1                          |                              |                             |                   |                 |                            |                         |
| WEST REACH                    | 31.8                       | 33.3                         | 35.4                        | 1-01              | 400             | 1.3                        | 35                      |
| EAST REACH                    | 29.6                       | 34.6                         | 32.2                        | 1-01              | 400             | 1.7                        | 35                      |
| SAN JOAQUIN RIVER             | 1                          |                              |                             |                   |                 |                            |                         |
| ANTIOCH REACH                 | 32.2                       | 33.4                         | 30.4                        | 4-00              | 400             | 3.3                        | 35                      |

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Chart 18656 NM 36/01

| TABULATED FROM SU             | RVEYS BY TI                | SUISUN                       |                             | JEERS - SURVEYS TO | O APR 2001      |                            |                         |
|-------------------------------|----------------------------|------------------------------|-----------------------------|--------------------|-----------------|----------------------------|-------------------------|
| CONTROLLING DEPTHS FROM SEAWA |                            |                              |                             |                    |                 | ECT DIMEN                  | ISIONS                  |
| NAME OF CHANNEL               | LEFT<br>OUTSIDE<br>QUARTER | MIDDLE<br>HALF OF<br>CHANNEL | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY     | WIDTH<br>(FEET) | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| SUISUN PT. REACH              | 42.9                       | 44.7                         | 47.9                        | 4-01               | 300             | 0.8                        | 35                      |
| BULLS HEAD CHANNEL            | 36.2                       | 36.0                         | 34.9                        | 4-01               | 300-350         | 1.2                        | 35                      |
| EAST BULLS HEAD CHANNEL       | 32.8                       | 33.6                         | 32.8                        | 4-01               | 350             | 1.1                        | 35                      |
| PT. EDITH CROSSING RANGE      | 35.6                       | 34.8                         | 28.4                        | 4-01               | 350             | 1.1                        | 35                      |
| PRESTON PT. REACH             | 35.5                       | 34.9                         | 25.7                        | 4-01               | 350             | 0.9                        | 35                      |
| ROE ISLAND CHANNEL            | 30.9                       | 33.2                         | 32.3                        | 4-01               | 350             | 1.1                        | 35                      |
| PORT CHICAGO REACH            | 36.8                       | 37.1                         | 36.3                        | 4-01               | 350             | 0.52                       | 35                      |
| MIDDLE GROUND CHANNEL         |                            |                              |                             |                    |                 |                            |                         |
| WEST REACH                    | 34.7                       | 36.4                         | 34.9                        | 4-01               | 350             | 1.29                       | 35                      |
| EAST REACH                    | 34.2                       | 36.5                         | 35.3                        | 4-01               | 350             | 1.09                       | 35                      |
| NEW YORK SLOUGH               |                            |                              |                             |                    |                 |                            |                         |
| WEST REACH                    | 31.8                       | 33.3                         | 35.4                        | 1-01               | 400             | 1.3                        | 35                      |
| EAST REACH                    | 29.6                       | 34.6                         | 32.2                        | 1-01               | 400             | 1.7                        | 35                      |

| Chart 18657   |                            |                              |                             |                   |                 | N:                         | M 36/01                 |  |
|---|----------------------------|------------------------------|-----------------------------|-------------------|-----------------|----------------------------|-------------------------|--|
|   |                            | SUISUN                       | BAY                         |                   |                 |                            |                         |  |
| TABULATED FROM SUR  | VEYS BY TI                 | HE CORPS                     | OF ENGIN                    | NEERS - SURVEYS T | O APR 2001      |                            |                         |  |
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS |                            |                              |                             |                   |                 |                            |                         |  |
| NAME OF CHANNEL   | LEFT<br>OUTSIDE<br>QUARTER | MIDDLE<br>HALF OF<br>CHANNEL | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY    | WIDTH<br>(FEET) | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |  |
| SUISUN PT. REACH  | 42.9                       | 44.7                         | 47.9                        | 4-01              | 300             | 0.8                        | 35                      |  |
| BULLS HEAD CHANNEL  | 36.2                       | 36.0                         | 34.9                        | 4-01              | 300-350         | 1.2                        | 35                      |  |
| EAST BULLS HEAD CHANNEL   | 32.8                       | 33.6                         | 32.8                        | 4-01              | 350             | 1.1                        | 35                      |  |
| PT. EDITH CROSSING RANGE  | 35.6                       | 34.8                         | 28.4                        | 4-01              | 350             | 1.1                        | 35                      |  |
| NOTE - CONSULT THE CORPS OF ENGI  | NEERS FOR                  | CHANGES                      | SUBSEQU                     | JENT TO THE ABOV  | E INFORMAT      | ION                        |                         |  |

|                                |                            | SUISUN                       | BAY                         |                   |                 |                            |                         |
|--------------------------------|----------------------------|------------------------------|-----------------------------|-------------------|-----------------|----------------------------|-------------------------|
| TABULATED FRÖM S               | URVEYS BY TH               | HE CORPS                     | OF ENGIN                    | IEERS - SURVEYS T | O APR 2001      |                            |                         |
| CONTROLLING DEPTHS FROM SEAWAR | D IN FEET AT               | MEAN LOV                     | WER LOW                     | WATER (MLLW)      | PRO             | JECT DIMEN                 | ISIONS                  |
| NAME OF CHANNEL                | LEFT<br>OUTSIDE<br>QUARTER | MIDDLE<br>HALF OF<br>CHANNEL | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY    | WIDTH<br>(FEET) | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| EAST BULLS HEAD CHANNEL        | 32.8                       | 33.6                         | 32.8                        | 4-01              | 350             | 1.1                        | 35                      |
| PT. EDITH CROSSING RANGE       | 35.6                       | 34.8                         | 28.4                        | 4-01              | 350             | 1.1                        | 35                      |
| PRESTON PT. REACH              | 35.5                       | 34.9                         | 25.7                        | 4-01              | 350             | 0.9                        | 35                      |
| ROE ISLAND CHANNEL             | 30.9                       | 33.2                         | 32.3                        | 4-01              | 350             | 1.1                        | 35                      |
| PORT CHICAGO REACH             | 36.8                       | 37.1                         | 36.3                        | 4-01              | 350             | 0.52                       | 35                      |
| MIDDLE GROUND CHANNEL          |                            |                              |                             |                   |                 |                            |                         |
| WEST REACH                     | 34.7                       | 36.4                         | 34.9                        | 4-01              | 350             | 1.29                       | 35                      |
| EAST REACH                     | 34.2                       | 36.5                         | 35.3                        | 4-01              | 350             | 1.09                       | 35                      |